

THE GREEN SCURF DISEASE CAUSED BY CEPHALEUROS VIRESCENS KUNZE

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Green scurf is a disease problem most serious in the subtropical and tropical regions of the world but not restricted to these geographical areas. It is commonly found in India and the East Indies as well as in the Gulf States of the United States and the West Indies (2). Green scurf is also known as alga spot, red leaf spot (6), red rust (3), and blackberry disease (1). The alga has a wide host range of tropical and subtropical plants and is particularly serious on tea, *Thea sinensis* L., rubber, *Hevea brasiliensis* Muell., and cacao, *Theobroma cacao* L., in the warmer, high-moisture regions of the world. Leaves are most generally attacked, but in some cases stems are also affected. Leaves having a smooth, somewhat leathery surface are more prone to infection by the alga (3).

Cephaleuros virescens Kunze is the causal agent of the green scurf disease. It is a member of the green algae and one of the very few algae known to be parasitic on higher plants. It was also known as *Mycoidea parasjtica* Cunn., *Cephaleuros mycoidea* Karst., and *Phyllactidium tropicum* Mobius (4). *Cephaleuros* has a discoid thallus and develops in the subcuticular region of the leaves, but almost never invading the living tissue. It reproduces via the production of gametangia and stalked sporangia, which liberate flagellated swim spores when

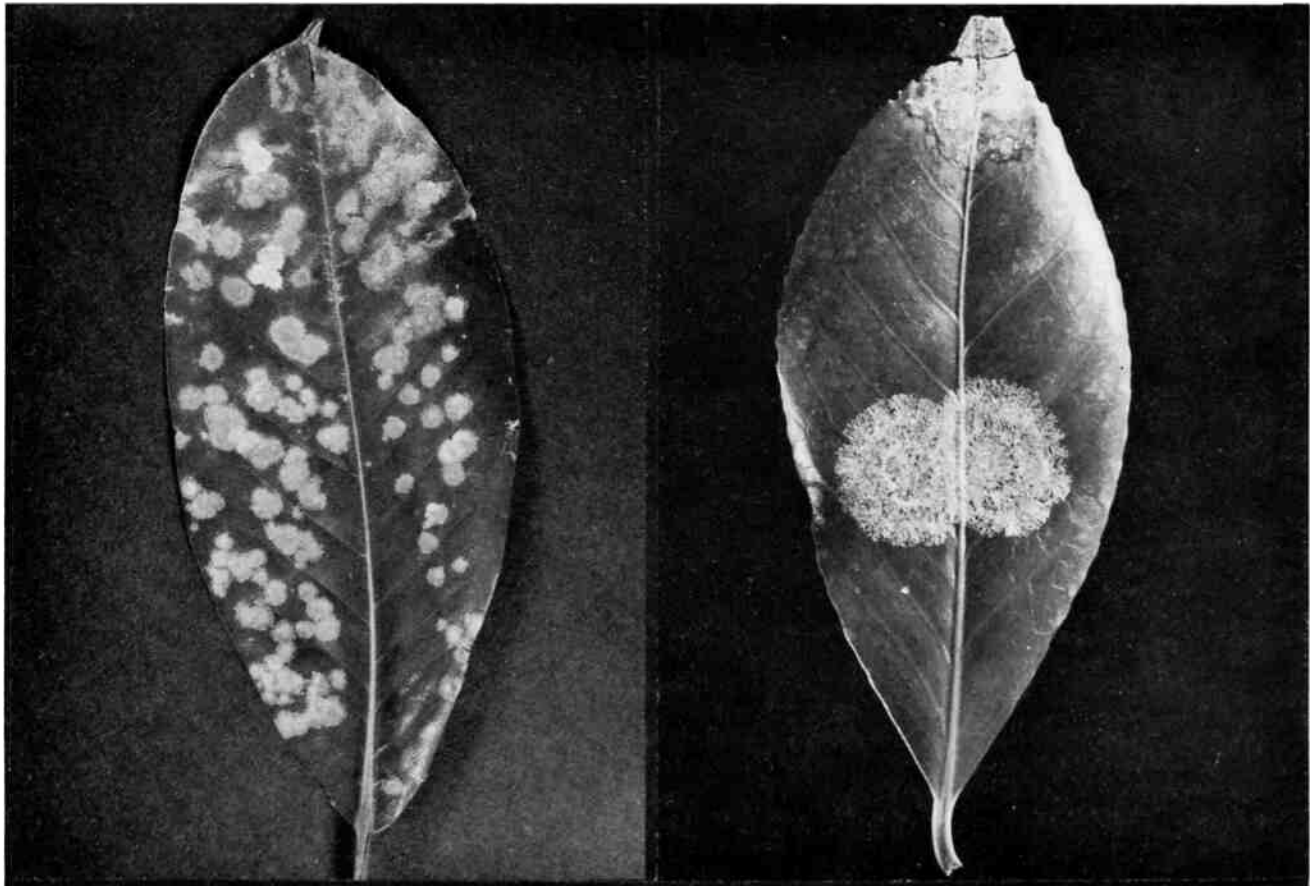


Fig. 1. *Cephaleuros virescens*, the cause of green scurf on *Magnolia grandiflora* L. (left) and *Camellia japonica* L. (right).

mature and in the presence of water. The dissemination of spores onto new hosts is accomplished by wind and water (3, 5), thus algal spread is most rapid during periods of frequent and abundant rains.

SYMPTOMS. Green scurf appears principally on leaves and to a lesser extent on stems and fruit as with citrus. Spots on the leaves appear as slightly raised greyish green to reddish brown areas which are very small to large in size, generally found most frequently on the upper surface of the leaves (Fig. 1). The leaf spot may take on a cushion-, velvet- or cork-like appearance. Infected areas of the stem appear slightly swollen with hair-like fruiting structures. In some cases the stem may become girdled and the plant stunted (3) with subsequent death of twigs (2).

CONTROL. Essentially, good control of the green scurf disease lies in the application of a fixed copper fungicide, improvement of drainage in reducing wet situations, and maintenance of vigorous plant growth. If possible, infected limbs and leaves should be collected and destroyed so that the amount of available alga for potential infections is reduced or kept at a minimum.

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